ECS Cruises – Shipboard use of SESAR spreadsheets

Assignment of one IGSN to each whole core, grab, or dredge haul is the minimum acceptable shipboard documentation for geologic samples collected on ECS cruises. At the discretion of the Chief Scientist, IGSNs may be assigned at sea to subsamples as described below.

Using SESAR Spreadsheets w/ Pre-assigned IGSNs

1. An IGSN should be assigned to any physical object such as a core, dredge, core section, box slab, or specimen from a dredge. Rule of thumb is that if an object gets a label, it should have an IGSN.
2. Preferably, an object should get an IGSN as soon as it is given a name and labeled. The name of the object should be entered into a row of the spreadsheet. The IGSN of this row will be the IGSN of the object. Example: The core named HLY1002-PC1 in the spreadsheet below has the IGSN "ECS003000".

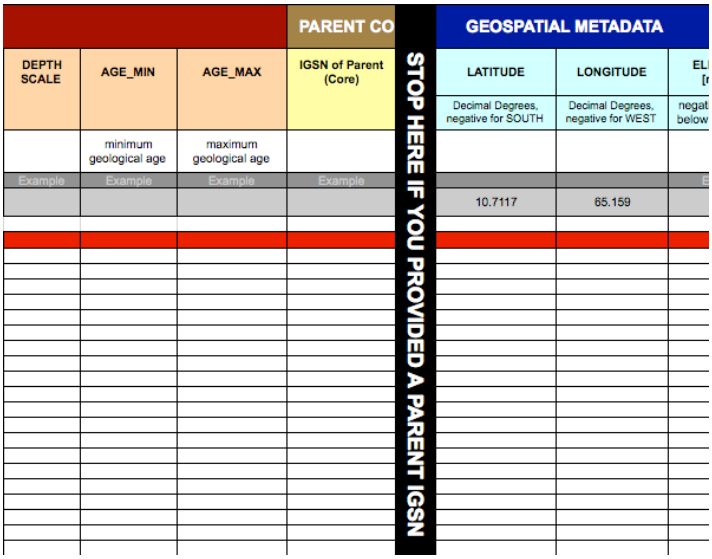
		IDENTIFICATION/LOCATION				DESCRIPTION	
	IGSN	NAME	OTHER NAME	CURRENT ARCHIVE	ORIGINAL ARCHIVE	CORING METHOD	COR
	For Pre-assigned IGSN s only	Your name of the core	Any other name used for this core	Name of Institution	Name of Institution	see tab 'Method'	f
		Example	Example			Example	
		TW-PL7	n/a			Coring>PistonCorer	
No.		Enter your sample information below					
1	ECS003000	HLY1002-PC1				Coring>PistonCorer	
2	ECS003001						
3	ECS003002						
4	ECS003003						
5	ECS003004						
6	ECS003005						

3. The IGSN should be added to the label of each objects in the form IGSN:ECS00XXXX (e.g. IGSN:ECS003684).
4. Objects can be 'parents' to other objects ('children') that were generated from them. Child objects can become parent objects to other objects.

Parent	**Child**
Core	Core section
Core section	Core section half
Core section half	Core sample
Core	Core sample
Dredge	Rock specimen from dredge
Hand specimen	Thin section

Each child gets its own IGSN. Parent objects should always be given an IGSN before a child object is generated, so that the parent IGSN can be entered into the spreadsheet to ensure that the relation between parent and child objects is properly recorded. (A column for 'IGSN of Parent' is included in the SESAR spreadsheet.) If the parent has been assigned an IGSN before the child is generated, the IGSN of the parent can be looked up in the spreadsheet or read from the label.

5. Each object should be described further with information (metadata) about its provenance (latitude/longitude, elevation/water depth, lithology, cruise, collection date, etc.). This information (metadata) constitutes the 'profile' of an object. The SESAR spreadsheets contain columns into which this information can be entered. The Appendix includes a list of all metadata, highlighting the ones that are recommended by SESAR.
6. If a child object is properly linked to its parent by having the parent IGSN entered into the column 'IGSN of Parent' in the SESAR spreadsheet, it can 'inherit' metadata from their parent objects. For example, a core section (child) will inherit the latitude/longitude from its parent core. The SESAR spreadsheets indicate with a thick black line which part of the spreadsheet does not need to be filled out if a parent IGSN is provided.



			PARENT CO	STOP HERE IF YOU PROVIDED A PARENT IGSN	GEOSPATIAL METADATA		
DEPTH SCALE	AGE_MIN	AGE_MAX	IGSN of Parent (Core)		LATITUDE	LONGITUDE	EL [
					Decimal Degrees, negative for SOUTH	Decimal Degrees, negative for WEST	negat below
	minimum geological age	maximum geological age					
Example	Example	Example	Example				
					10.7117	65.159	

Some practical advice:

- Have the SESAR spreadsheet with the pre-assigned IGSNs at the site (on deck or in the lab) where new cores or dredges are logged and labeled.
    - If cores or dredges are logged directly into a computer, enter the name of every new core immediately into a row in the SESAR spreadsheet.
    - If cores are logged into a notebook or a paper form, have a printout of the SESAR form with the pre-assigned IGSNs ready and enter the name of the core into the printout. Note the IGSN in the notebook or paper form as well. Transfer the names from the printout to the electronic version of the spreadsheet as soon as possible.

NOTE: It saves time to use the SESAR spreadsheet to log all your cores. This way you avoid duplicate data entry and errors (typos) that could be introduced when transferring data from your logs to the SESAR spreadsheet. You can add additional columns to the SESAR spreadsheet for information that is currently not captured in the spreadsheet.

- Child objects such as core sections, slabs, smear slides, or individual pieces of rock from a dredge should be labeled with their own IGSN. The parent IGSN does not need to be on the label, as long as it is entered into the SESAR spreadsheet.
- In general, it should be straight forward to log the parent objects (cores & dredges) into a single spreadsheet. Difficulties with assigning IGSN from spreadsheet with pre-assigned IGSNs arise if several sample curators work on generating 'children' (individual rock samples or samples from cores) that they need to assign IGSNs to. In this case, special attention needs to be paid that an IGSN is not assigned to two or even more samples at the same time. We recommend that each curator be given a batch of the pre-assigned IGSNs from the appropriate worksheet (e.g. from 'Core samples' or from 'Dredge sample', depending on what the curator works on). It should be noted in the spreadsheet which curator received the IGSNs. The curator will assign IGSNs from his/her batch until it is used up. The IGSN and Parent IGSN should be added to any notes that the curator is taking about the samples they logged. All logs need to be merged at the end of the cruise into the SESAR spreadsheet.

APPENDIX

Columns in SESAR spreadsheets for sample metadata

NOTE: SESAR recommended metadata are in **BOLD.**

METADATA NAME	Example	Description
IDENTIFICATION		
IGSN	**SIO090852**	**International Geo Sample Number**
NAME	**HLY0805-D3**	**name of object as given by registrar**
OTHER NAME	DR-3	other names of the object such as old catalog numbers
CURRENT ARCHIVE	**Scripps Institution of Oceanography**	**location where an object is currently stored**
ORIGINAL ARCHIVE		location where an object was initially archived
DESCRIPTION		
SAMPLING/CORING METHOD	**Dredging**	**method used to collect the object in the field**
SAMPLING METHOD DESCRIPTION		additional information about a specific sampling method
SIZE	14 x 25	dimensions, volume or weight of object
SIZE UNIT	cm	unit of size
MATERIAL TYPE	**sediment**	**type of material that the object is made of**
CLASSIFICATION	**igneous>volcanic>mafic**	**classification (taxonomy) of the material if object is made of a singular material**
FIELD NAME	basalt	informal' classification by registrar
DESCRIPTION	euhedral, clear, beautiful twinning	description of the object
COMMENT	no material left	specific information relating to the object
DEPTH_MIN	**107cm**	**depth at which a sample is taken from a parent object (core), upper limit**
DEPTH_MAX	**115cm**	**depth at which a sample is taken from a parent object (core), lower limit**
DEPTH SCALE	**meters below sea floor (MBSF)**	**scale used to describe depth in a core**
AGE_MIN	12	minimum age of an object given in million years
AGE_MAX	15	maximum age of an object given in million years
RELATION TO PARENT		
TOP DEPTH		**depth at which a sample is taken from a parent object (core), upper limit**

BOTTOM DEPTH		**depth at which a sample is taken from a parent object (core), lower limit**
UNIT		**depth scale?**
IGSN OF PARENT		**IGSN of parent object**
GEOSPATIAL		
LATITUDE(_START)	**20.675**	**latitude of sample location; 'on bottom' latitude for line locations; positive values are 'North', negative values are 'South'**
LONGITUDE(_START)	**-109.789**	**longitude of sample location; 'on bottom' longitude for line locations; positive values are 'East', negative values are 'West'**
		coordinate system used to establish lat/long
ELEVATION(_START)	**-356**	**meters above or below sea level**
LATITUDE_END	**20.742**	**latitude of sample location; 'off bottom' latitude for line locations**
LONGITUDE_END	**-108.99**	**longitude of sample location; 'off bottom' longitude for line locations**
		coordinate system used to establish lat/long
ELEVATION_END	**-387**	**meters above or below sea level**
PRIMARY LOCATION TYPE	**ocean ridge**	**type of physiographic feature such as mountain, sea, ridge, etc.**
PRIMARY LOCATION NAME	**East Pacific Rise**	**name of physiographic feature**
LOCATION DESCRIPTION	ridge axis	further description of geospatial location
LOCALITY	21 North study area	specific name of a place such as the name of a mine, of an outcrop, a a ridge section, etc.
LOCALITY DESCRIPTION		further description of the locality
COUNTRY		Terrestrial locations only: country name
PROVINCE		Terrestrial locations only: province or state
COUNTY		Terrestrial locations only: name of county
CITY/TOWNSHIP		Terrestrial locations only: name of a city or township close to the sample location
COLLECTION		
CRUISE or FIELD PROGRAM	**HLY0805**	**name of a field program (cruise or on-land expedition or sampling campaign)**
PLATFORM TYPE	**Ship**	**type of sampling platform such as ship, drill rig, etc**
PLATFORM ID	**USCGC Healy**	**name of platform such as name of a ship**
PLATFORM DESCRIPTION	US Coast Guard Cutter	futher dsecription of the platform
COLLECTOR/ CHIEF SCIENTIST	Steven Goldstein	name of person who collected the sample
	Lamont-Doherty Earth Observatory, Palisades, NY	further information about the collector
COLLECTION DATE: START	**May-12**	**date of sample collection (start)**
COLLECTION DATE: END	**May-12**	**date of sample collection (end)**